

FORM PTO-1390 (Modified) U.S. PATENT AND TRADEMARK OFFICE; U.S. DEPARTMENT OF COMMERCE  
(REV. 9-2007)

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

ATTORNEY'S DOCKET NUMBER

004974.01216

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

10/590,304

INTERNATIONAL APPLICATION NO.  
PCT/EP2005/001420INTERNATIONAL FILING DATE  
12 FEBRUARY 2005PRIORITY DATE CLAIMED  
26 FEBRUARY 2004

## TITLE OF INVENTION

**DIAGNOSTICS AND THERAPEUTICS FOR DISEASES ASSOCIATED WITH GLYCOGEN SYNTHASE KINASE 3 BETA (GSK3B)**

## APPLICANT(S) FOR DO/EO/US

GOLZ, Stefan *et al.*

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☐ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☒ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (25) indicated below.
4. ☐ The US has been elected (Article 31).
5. ☐ A copy of the International Application as filed (35 U.S.C. 371 (c)(2))
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☐ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).
11. ☐ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☐ A copy of the International Search Report (PCT/ISA/210).

## Items 13 to 23 below concern document(s) or information included:

13. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☐ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☐ An Application Data Sheet under 37 CFR 1.76.
18. ☐ A substitute specification.
19. ☐ A power of attorney and/or change of address letter.
20. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13~~ter~~.2 and 37 CFR 1.821 - 1.825.
21. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
22. ☐ A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).
23. ☐ Express Mail Label No.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICATION NO (if known, see 37 CFR 1.5) <b>10/590,304</b>		INTERNATIONAL APPLICATION NO. <b>PCT/EP2005/001420</b>		ATTORNEY'S DOCKET NUMBER <b>004974.01216</b>	
24. Other items or information: <b>Response to Notification of Missing Requirements with copy of the Notification.</b>					
The following fees have been submitted:				<b>CALCULATIONS PTO USE</b>	
25. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a)). . . . . \$300				\$	\$0.00
26. <input type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article \$0 All other situations. . . . . \$200				\$	\$0.00
27. <input type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4). . . \$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority. . . . . \$100 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB. . . . . \$400 All other situations. . . . . \$500				\$	\$0.00
<b>TOTAL OF 25, 26 and 27 =</b>				\$	\$0.00
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) in an electronic medium or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole)		RATE	
- 100 =	0 /50 =	0		x	\$250.00
				\$	\$0.00
Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).				\$	\$130.00
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	- 20 =	0	x	\$50.00	\$ \$0.00
Independent claims	- 3 =	0	x	\$200.00	\$ \$0.00
MULTIPLE DEPENDENT CLAIMS (if applicable) <input type="checkbox"/> + \$360.00				\$	\$0.00
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$	\$130.00
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.				\$	\$0.00
<b>SUBTOTAL =</b>				\$	\$130.00
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				\$	\$0.00
<b>TOTAL NATIONAL FEE =</b>				\$	\$130.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40 per property +				\$	\$40.00
<b>TOTAL FEES ENCLOSED =</b>				\$	\$170.00
130.00 DA				Amount to be	\$
				Amount to be	\$

05/30/2007  
01 FC:1617

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

- a. ☐ A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b. ☒ Please charge my Deposit Account No. 19-0733 in the amount of \$ \$170.00 to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 19-0733. A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. The PTO-2038 should only be mailed or faxed to the USPTO. However, when paying the basic national fee, the PTO-2038 may NOT be faxed to the USPTO.

**ADVISORY:** If filing by EFS-Web, do NOT attach the PTO-2038 form as a PDF along with your EFS-Web submission.  
Please

be advised that this is not recommended and by doing so your credit card information may be displayed via PAIR. To

**NOTE:** Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

Banner & Witcoff, Ltd.  
Customer Number: 22907

  
SIGNATURE

Lisa M. Hemmendinger

NAME

42,653

REGISTRATION NUMBER

May 25, 2007

DATE

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:	)	
	)	
GOLZ et al	)	Group Art No. TBA
	)	
Serial No: 10/590,304	)	Examiner: TBA
	)	
Filed: August 23, 2006	)	Docket No. 004974.01216

For: **DIAGNOSTICS AND THERAPEUTICS FOR DISEASES ASSOCIATED  
WITH GLYCOGEN SYNTHASE KINASE 3 BETA (GSK3B)**

**RESPONSE TO NOTIFICATION OF MISSING REQUIREMENTS UNDER  
35 U.S.C. 371 IN THE DO/EO/US**

Commissioner of Patents  
U.S. Patent and Trademark Office  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Sir:

In response to the Notification Of Missing Requirements Under 35 U.S.C. 371 In The United States Designated/Elected Office (DO/EO/US) dated April 2, 2007, Applicants submit herewith the following documents to complete the requirements for acceptance under 35 USC 371:

1. Fee Transmittal Sheet Form PTO-1390 (Modified) in Duplicate;
2. Copy of the Notification of Missing Requirements; and
3. Executed Declaration for Patent Application.

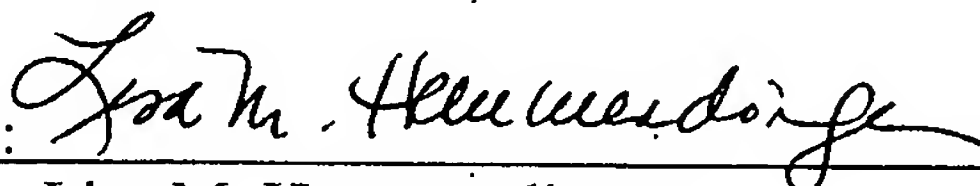
The Commissioner for Patents is authorized to charge our Deposit Account No. 19-0733 in the amount of \$130.00, as follows:

\$ 130.00 Late declaration surcharge

It is not believed that any additional fees are required. However, in the event that additional fees are necessary, then such fees are authorized to be charged to our Deposit Account No. 19-0733.

Respectfully submitted,

**BANNER & WITCOFF, LTD.**

By: 

Lisa M. Hemmendinger  
Registration No. 42,653

Date: 5/25/07

Banner & Witcoff Ltd  
Customer Number: 22907

LMH:sdm



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/590,304	Stefan Golz	004974.01216

INTERNATIONAL APPLICATION NO.

PCT/EP05/01420

I.A. FILING DATE

PRIORITY DATE

02/12/2005

02/26/2004

22907  
 BANNER & WITCOFF, LTD.  
 1100 13th STREET, N.W.  
 SUITE 1200  
 WASHINGTON, DC 20005-4051

**RECEIVED**

APR 04 2007

**BANNER & WITCOFF, LTD.**

CONFIRMATION NO. 5477

371 FORMALITIES LETTER



\*OC000000023182367\*

Date Mailed: 04/02/2007

### NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Copy of the International Application filed on 08/23/2006
- Copy of the International Search Report filed on 08/23/2006
- Preliminary Amendments filed on 08/23/2006
- Information Disclosure Statements filed on 08/23/2006
- Biochemical Sequence Diskette filed on 08/23/2006
- Biochemical Sequence Listing filed on 08/23/2006
- Request for Immediate Examination filed on 08/23/2006
- U.S. Basic National Fees filed on 08/23/2006
- Specification filed on 08/23/2006
- Claims filed on 08/23/2006
- Abstracts filed on 08/23/2006
- Drawings filed on 08/23/2006

Docketed 4/4/07  
 Attny DHH/LMH/Int'l  
 Case Ref. 004974.01216  
 Action Notice File Miss Req.  
 Due Date 6/2/07  
 Last Day 11/2/07  
 By TMH

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.

**ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.**

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.  
<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at <http://www.uspto.gov/ebc>.

**If you are not using EFS-Web to submit your reply, you must include a copy of this notice.**

DEBORAH D WILLIAMS

Telephone: (703) 308-9140 EXT 205

**PART 1 - ATTORNEY/APPLICANT COPY**

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/590,304	PCT/EP05/01420	004974.01216

FORM PCT/DO/EO/905 (371 Formalities Notice)



PATENTS ONLY

Tab settings → → → ▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼

To the Director of the United States Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):  
1) GOLZ , Stefan  
2) Ulf BRÜGGEMEIER , Ulf  
3) GEERTS, Andreas  
4 )WEINGÄRTNER, Bernhard

Additional names(s) of conveying party(ies) ☐ Yes ☒ No

2. Name and address of receiving party(ies):

Name: Bayer HealthCare AG

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

City: Leverkusen State/Prov.: \_\_\_\_\_

Country: Germany ZIP: 51368

Additional name(s) & address(es) ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment ☐ Merger

☐ Security Agreement ☐ Change of Name

☐ Other \_\_\_\_\_

Execution Date: 8/16/06;9/20/06;08/16/06 & 9/26/06

4. Application number(s) or patent numbers(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

Patent Application No.	Filing date	B. Patent No.(s)
<u>10/590,304</u>	<u>August 23, 2006</u>	

Additional numbers ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Lisa M. Hemmendinger

Registration No. 42,653

Address: Banner & Witcoff, Ltd.

Suite 1200

1100 13th St. N.W.

City: Washington State/Prov.: D.C.

Country: U.S. ZIP: 20005-4051

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41):.....\$ 40.00

☐ Enclosed - Any excess or insufficiency should be credited or debited to deposit account

☒ Authorized to be charged to deposit account

8. Deposit account number:

19-0733

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Lisa M. Hemmendinger *Lisa M. Hemmendinger* May 25, 2007

Name of Person Signing Signature Date

Total number of pages including cover sheet, attachments, and document: 2



# Assignment

For valuable consideration, the receipt and adequacy of which is hereby acknowledged,

I/We

1)GOLZ, Stefan 2)BRÜGGEMEIER, Ulf 3)GEERTS, Andreas  
4)WEINGÄRTNER, Bernhard

1)Bückmannsmühle 46, 45326 Essen, Germany  
2)Leysiefen 20, 42799 Leichlingen, Germany  
3)Schuckertstrasse 29, 42113 Wuppertal, Germany  
4)Birkenweg 4, 42489 Wülfrath, Germany

hereby sell, assign, and transfer unto Bayer HealthCare AG a corporation of Germany located at 51368 Leverkusen, Germany the entire right, title, and interest in and to my/our application for Letters Patent of the United States, executed concurrently herewith, entitled

**DIAGNOSTICS AND THERAPEUTICS FOR DISEASES ASSOCIATED WITH  
GLYCOGEN SYNTHASE KINASE 3 BETA (GSK3B)**

Filed: February 12, 2005

PCT-Serial No.: PCT/EP2005/001420

and my/our entire right, title, and interest in and to all my/our inventions, whether joint or sole, disclosed in said application for Letters Patent, and in and to all divisional or continuation applications that may be filed for United States Letters Patent for any of said inventions, and in and to all patents that may be granted on the foregoing applications, and I/we hereby agree, whenever requested, to communicate to said assignee, its successors and assigns, any facts known to my/us respecting said inventions and to execute all applications or papers necessary to obtain and maintain proper patent protection on said inventions in the United States.

Date/Datum

→ 16.08.06

→ 20.9.06

→ 16.08.2006

→ 26.9.2006

Inventor(s)/Erfinder

1.

2.

3.

4.